STATE OF MARYLAND

DHMH

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April 6, 2012

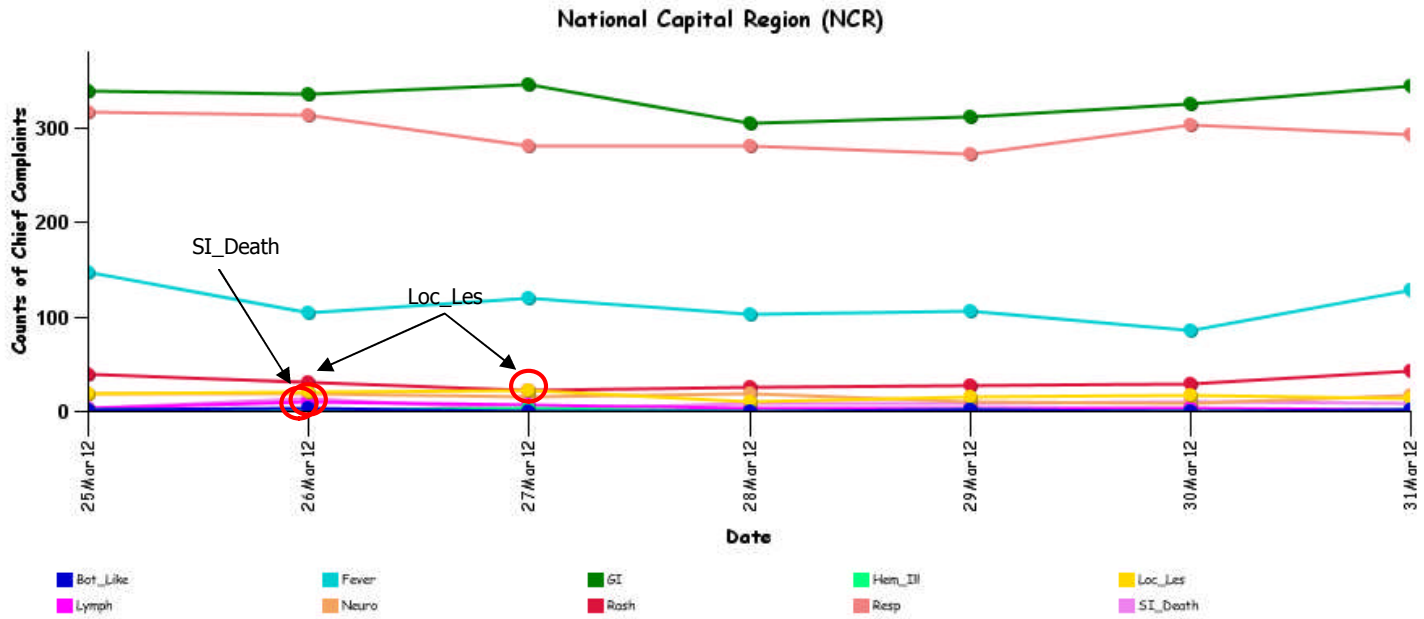
Public Health & Emergency Preparedness Bulletin: # 2012:13
Reporting for the week ending 03/31/12 (MMWR Week #13)

CURRENT HOMELAND SECURITY THREAT LEVELS

National: **No Active Alerts**
Maryland: **Level One (MEMA status)**

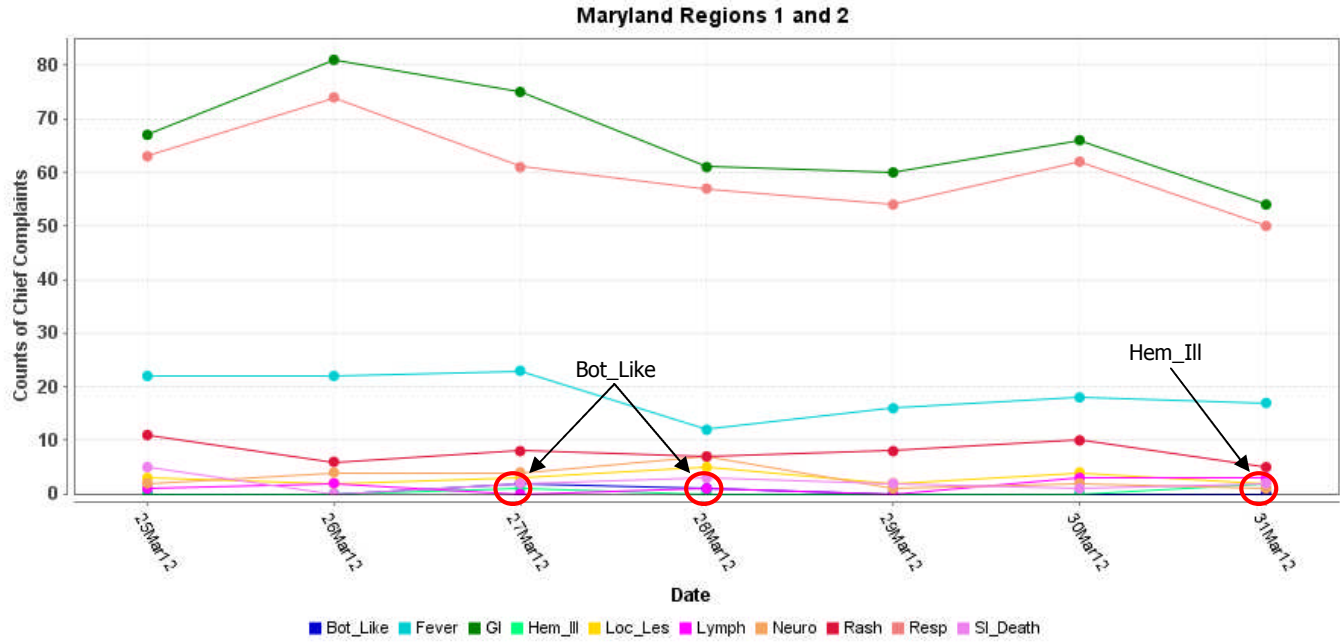
SYNDROMIC SURVEILLANCE REPORTS
ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled. Red alerts are generated when observed count for a syndrome exceeds the 99% confidence interval. Note: ESSENCE – ANCR uses syndrome categories consistent with CDC definitions.

Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

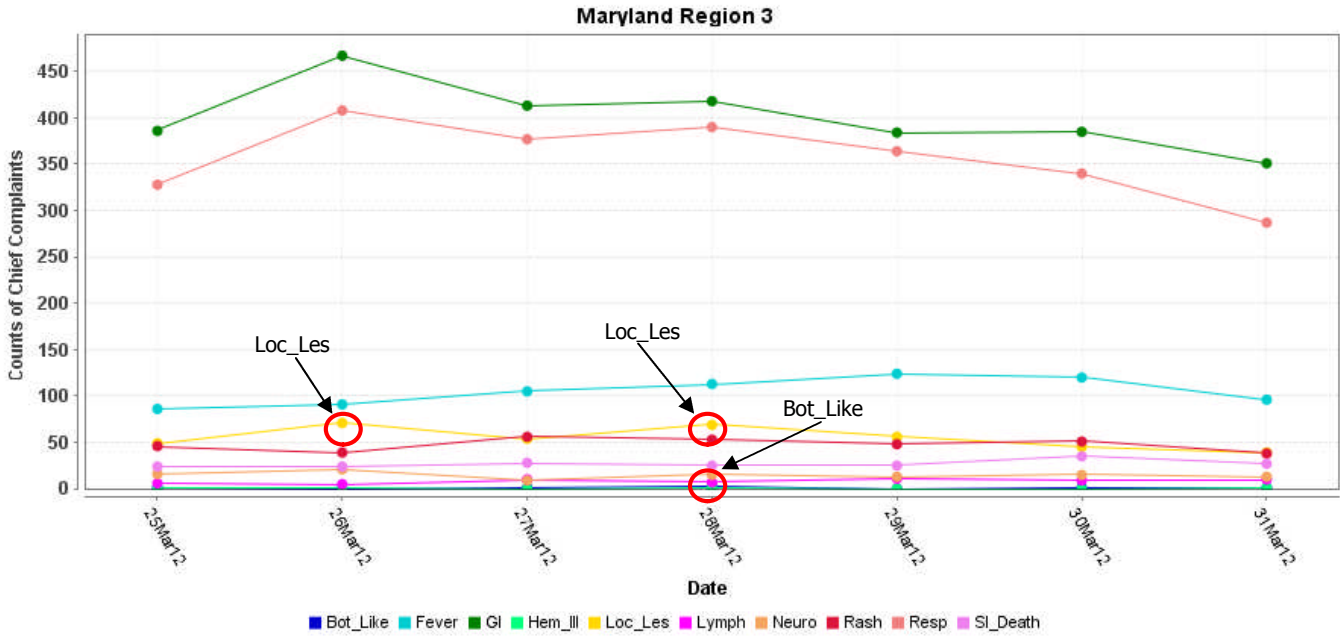


*Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE

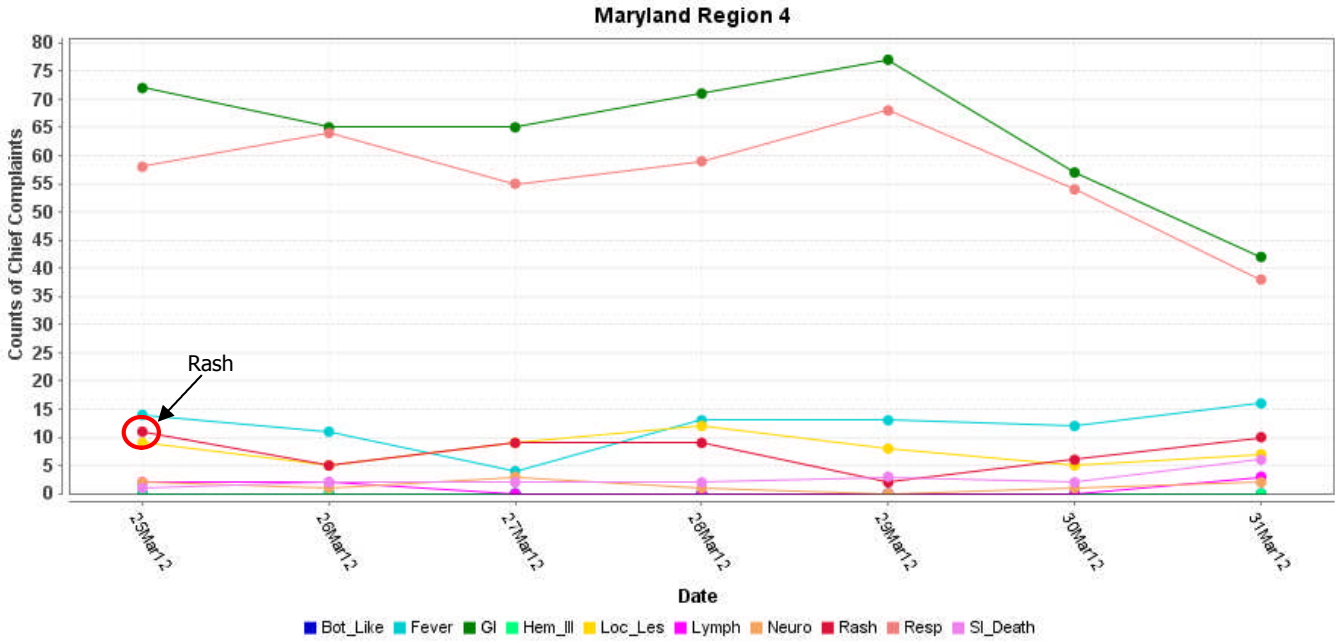
MARYLAND ESSENCE:



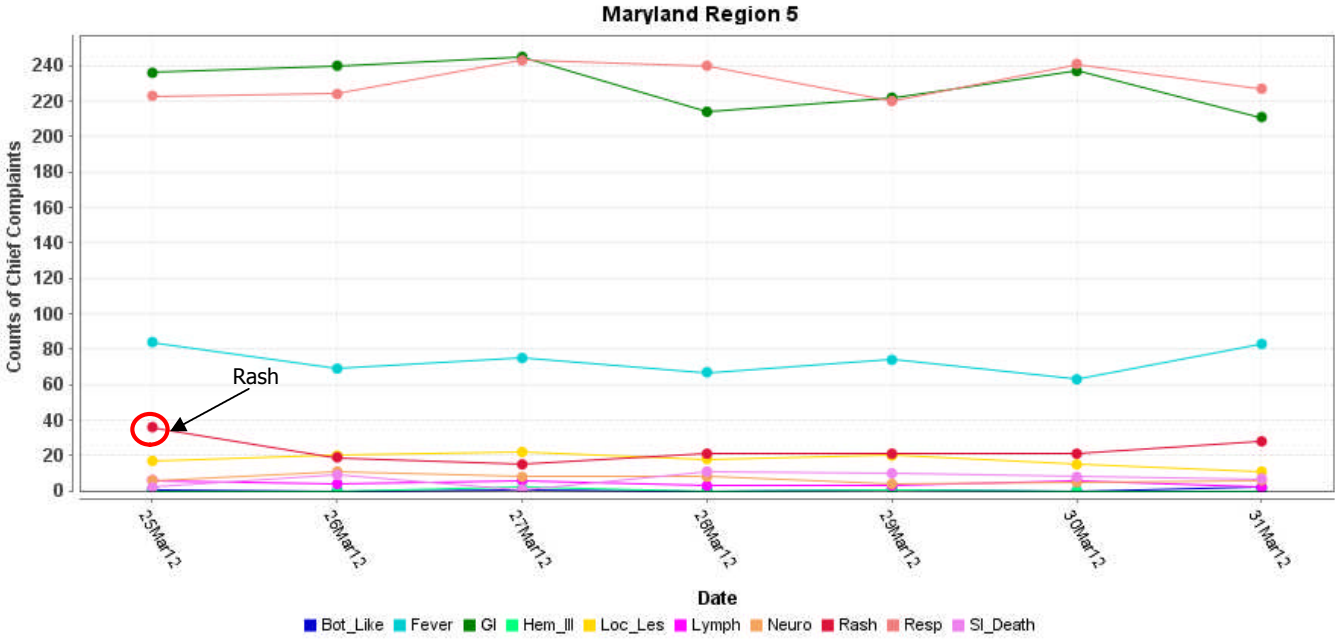
* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE



* Region 3 includes EDs in Anne Arundel, Baltimore City, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE



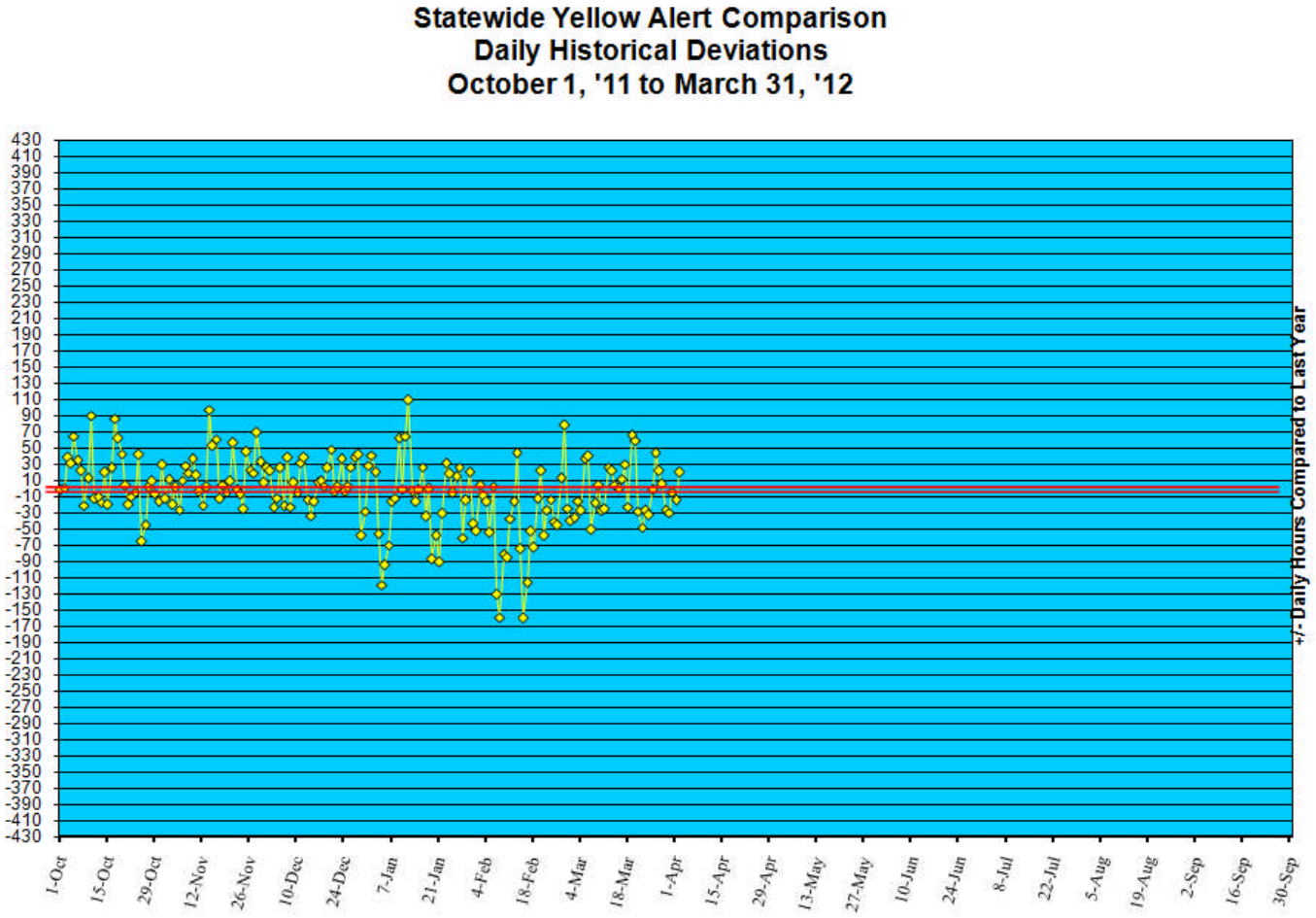
* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE



* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/11.



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to an emerging public health threat for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in February 2012 did not identify any cases of possible public health threats.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	**Aseptic**	**Meningococcal**
New cases (March 25 – March 31, 2012):	8	0
Prior week (March 18 – March 24, 2012):	7	0
Week#13, 2011 (March 26 – April 1, 2011):	9	0

1 outbreak was reported to DHMH during MMWR Week 13 (March 25 – March 31, 2012)

1 Gastroenteritis outbreak
1 outbreak of GASTROENTERITIS in an Assisted Living Facility

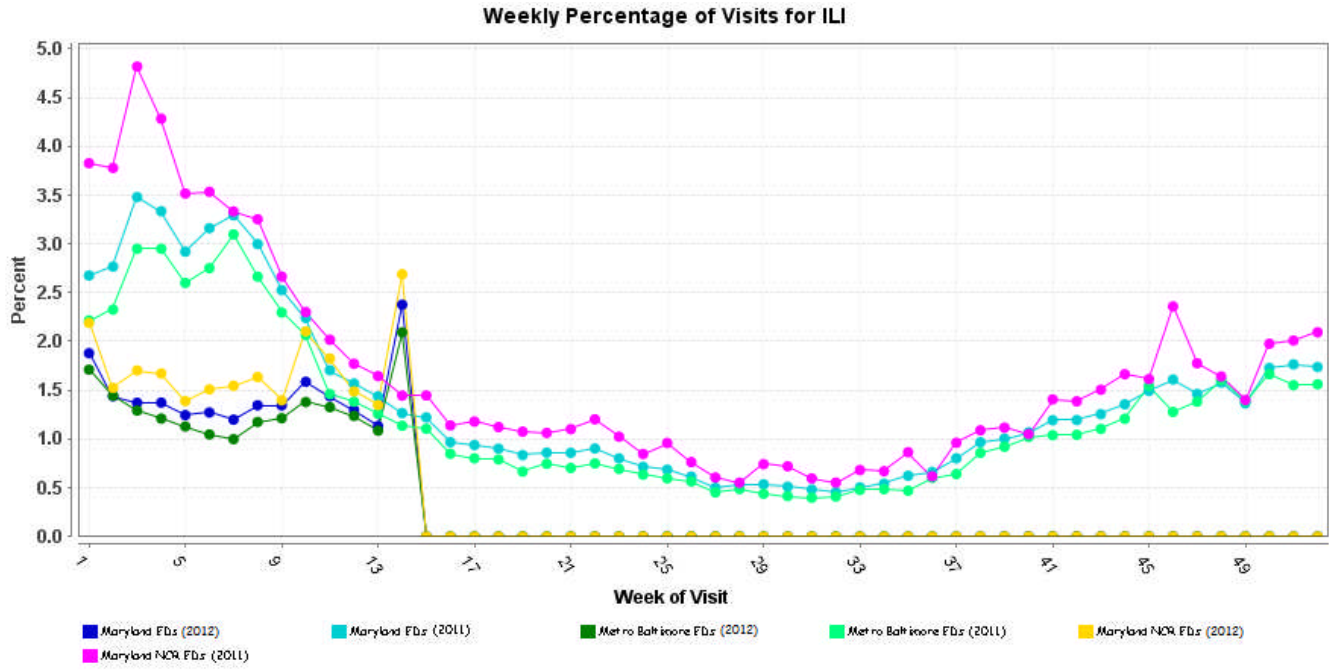
MARYLAND SEASONAL FLU STATUS

Seasonal Influenza reporting occurs October through May. Seasonal influenza activity for Week 13 was: Sporadic Activity, Minimal Intensity.

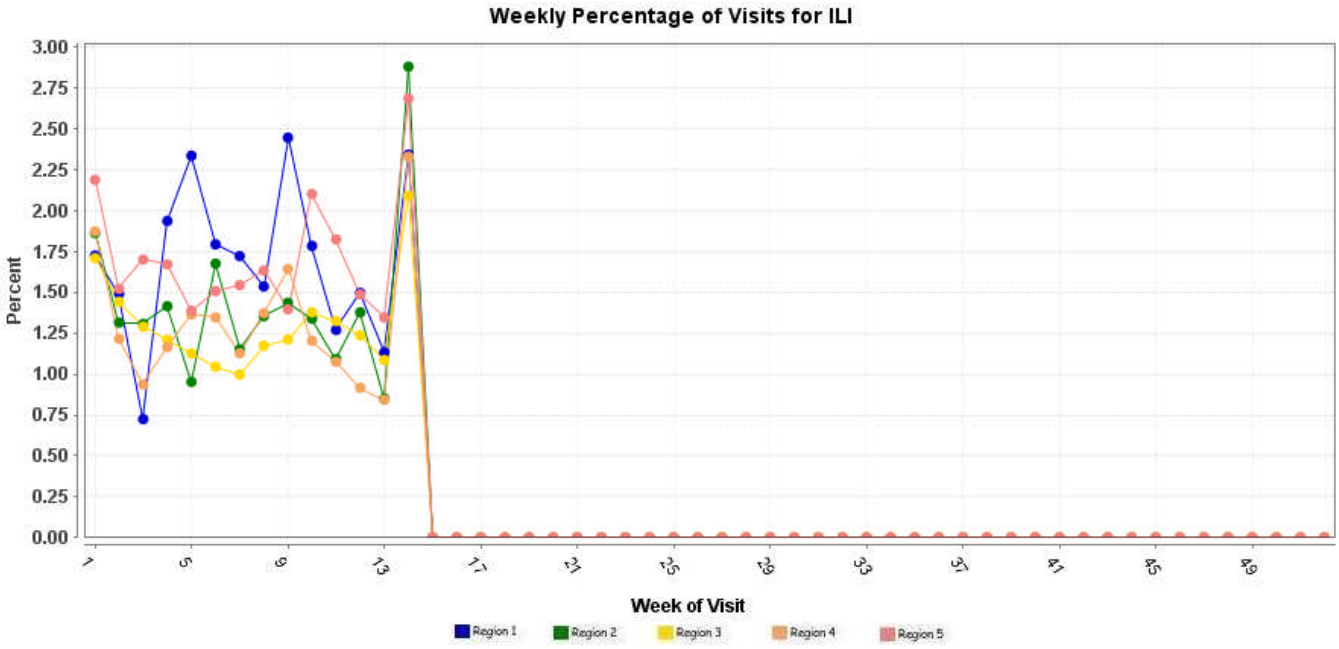
SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS

Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.



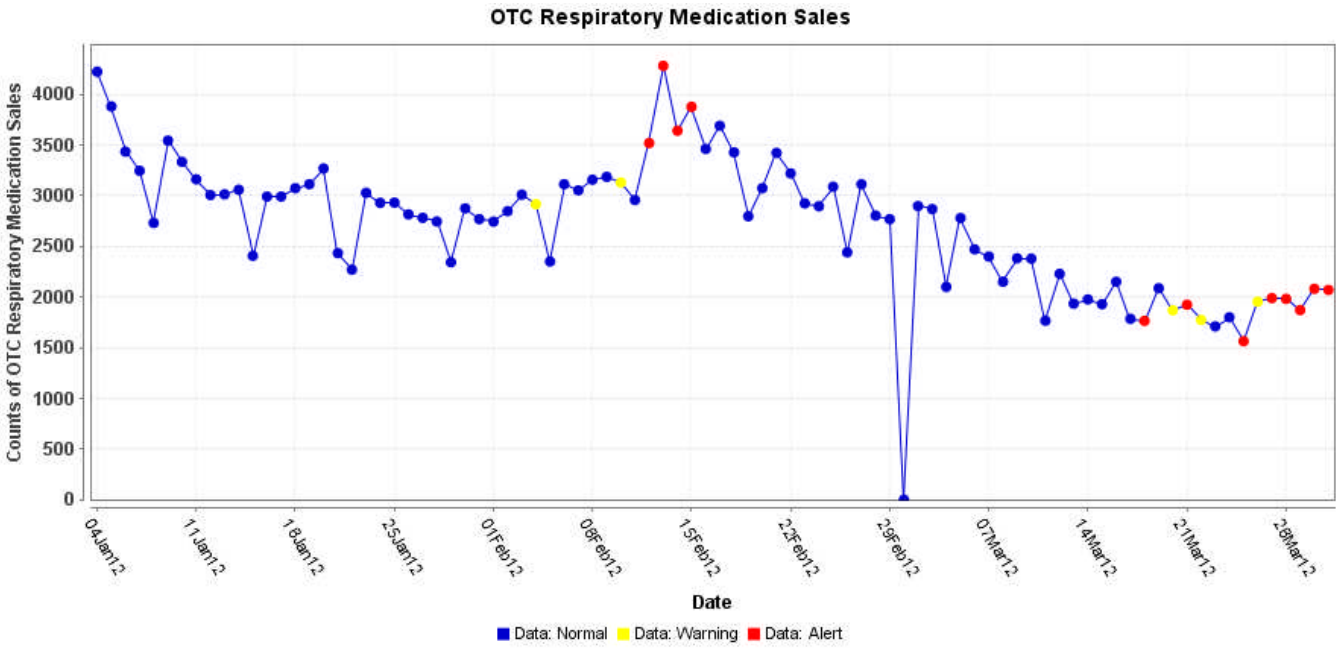
* Includes 2011 and 2012 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total



*Includes 2012 Maryland ED visits for ILI in Region 1, 2, 3, 4, and 5

OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.



PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

WHO update: The current WHO phase of pandemic alert for avian influenza is 3. Currently, the avian influenza H5N1 virus continues to circulate in poultry in some countries, especially in Asia and northeast Africa. This virus continues to cause sporadic human infections with some instances of limited human-to-human transmission among very close contacts. There has been no sustained human-to-human or community-level transmission identified thus far.

In **Phase 3**, an animal or human-animal influenza reassortant virus has caused sporadic cases or small clusters of disease in people, but has not resulted in human-to-human transmission sufficient to sustain community-level outbreaks. Limited human-to-human transmission may occur under some circumstances, for example, when there is close contact between an infected person and an unprotected caregiver. However, limited transmission under such restricted circumstances does not indicate that the virus has gained the level of transmissibility among humans necessary to cause a pandemic.

As of March 26, 2012, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 598, of which 352 have been fatal. Thus, the case fatality rate for human H5N1 is approximately 59%.

AVIAN INFLUENZA, HUMAN (INDONESIA): 27 March 2012, A 17-year-old has died of bird flu in Indonesia, the country's 6th fatality from the virus so far this year [2012]. Health ministry spokeswoman Murti Utami said Tuesday [27 Mar 2012] the boy from eastern Lombok island developed symptoms early this month [March 2012] after coming into contact with sick chickens. He died on 9 Mar 2012 after one week's hospitalization. Ms. Utami says laboratory results came back several days ago confirming he had the deadly H5N1 virus. Bird flu began ravaging poultry in 2003 and has killed 352 people worldwide. It is still present in some areas of Asia and the Middle East. Indonesia has been the hardest-hit country, accounting for 156 of the deaths.

AVIAN INFLUENZA, HUMAN (VIET NAM): 25 March 2012, A 31-year-old man from Dak Lak has become the 2nd patient to be successfully treated for bird flu (H5N1) so far this year [2012] in Viet Nam. The Hospital for Tropical Diseases in Ho Chi Minh City [HCMC] has announced that the patient, has recovered and been discharged from the hospital on 24 Mar [2012] after 19 days of intensive treatment. [The patient] was admitted to the hospital on 5 Mar [2012] with high fever, fatigue and respiratory problems. He was put on a breathing machine and kept in quarantine. His family said they had previously slaughtered and eaten a sick home-raised chicken more than 10 days earlier. [He] later developed a cough and high fever. They said the entire flock of chicken also died. [He] was treated with medicine at home for the 1st 3 days after falling sick. When his condition did not improve even after he was admitted to the Dak Lak Hospital, he was transferred to the Hospital for Tropical Diseases in HCMC where tests showed he was infected with the H5N1 virus. In a previous case, the hospital successfully treated a 22-year-old bird flu patient from Binh Duong Province who was discharged on 6 Mar [2012]. Viet Nam has so far this year [2012] reported 4 bird flu infections, 2 of which have been fatal, after a 20-month absence. On 21 Mar [2012], the Animal Health Department announced that Viet Nam was free of bird flu. According to relevant regulations, a province is considered free from an infectious disease if there is no new infection in 3 weeks.

NATIONAL DISEASE REPORTS

SALMONELLOSIS (USA): 30 March 2012, CDC is collaborating with public health officials in multiple states to investigate 3 overlapping, multistate outbreaks of human salmonellosis linked to exposure to turtles or their environments (e.g., water from a turtle habitat). The 1st is an outbreak of human *Salmonella Sandiego* infections, the 2nd is an outbreak of human *S. Pomona* infections, and the 3rd is an outbreak of human *S. Poona* infections. These are rare types of salmonellae. The *S. Sandiego* and *S. Pomona* outbreaks have similar geographic distributions, with cases occurring in the Northeast and Southwest. The *S. Poona* outbreak has a slightly different geographic distribution, with cases occurring in the Midwest and Southwest. Public health investigators are using the PulseNet system to identify cases of illness that may be part of these outbreaks. In PulseNet, the national subtyping network of public health and food regulatory agency laboratories coordinated by CDC, DNA "fingerprints" of salmonellae are obtained through diagnostic testing with pulsed-field gel electrophoresis, or PFGE, to identify cases of illness that may be part of this outbreak. Contact with reptiles (such as turtles, snakes, and lizards) and amphibians (such as frogs and toads) can be a source of human salmonellosis. Small turtles, with a shell length of less than 4 inches, are a well-known source, especially among young children. Because of this risk, the FDA has banned the sale and distribution of these turtles since 1975. Amphibians and reptiles can carry salmonellae and still appear healthy and clean. The bacilli are shed in their droppings and can easily contaminate their bodies and anything in areas where these animals live. Reptiles and amphibians that live in tanks or aquariums can contaminate the water with germs, which can spread to people. (Water Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

BOTULISM (NEW YORK): 31 March 2012, 2 people developed botulism, a rare but potentially fatal foodborne illness, after buying tofu at a store in Flushing. The NYC Health Department said in a release Friday evening, 30 Mar 2012, that it confirmed 1 case and suspected another case. Both of the afflicted are Chinese-speaking Queens residents who recently bought fresh, unrefrigerated bulk tofu from a Flushing market. The tofu was not made at the store, and its source is under investigation, the Health Department release states. "This kind of tofu, commonly sold in an open, water-filled bin, is highly suspected to be the source of these cases; however it has not yet been confirmed," the release states. Fresh, unrefrigerated tofu is used to make fermented tofu and is an ingredient in a popular Chinese dish called chou doufu, or stinky tofu. Anyone who has bought this variety of tofu is urged to throw it away, even if they cooked it, because the spores can survive cooking. A Health Department spokewoman said neither patient has died of the illness, but declined to comment on their condition. She also declined to name the Flushing store where the two bought the tofu. "We're still investigating the origin and destinations of the tofu, and because of that we aren't disclosing the name of the store," she said. New York City has seen only 1 other case of foodborne botulism in the past 15 years. (Botulism is listed in Category A on the CDC List of Critical Biological Agents) *Non-suspect case

INTERNATIONAL DISEASE REPORTS

CIGUATERA FISH POISONING (CHINA): 27 March 2012, The Center for Health Protection (CHP) of the Department of Health is today, 27 Mar 2012, investigating ciguatoxin poisoning cases affecting 5 people who have consumed coral reef fish. The 1st episode involved 3 women and a man, aged between 20 and 56, who developed symptoms of ciguatoxin poisoning including abdominal pain, limb numbness, and diarrhea between 2 to 10 hours after eating a fish during dinner at home on 23-24 Mar 2012. One of them sought medical treatment at Pamela Youde Nethersole Eastern Hospital and required hospitalization. All are now in stable condition. Investigation revealed that the fish was purchased from a market in Ap Lei Chau on 23 Mar 2012.

The other episode involved a woman aged 48. She developed symptoms of ciguatoxin poisoning including diarrhea, numbness over face and limbs, reversal of sensation of coldness and hotness, and headache 3 hours after eating a fish at home at midnight of 26 Mar 2012. She sought medical consultation at United Christian Hospital but did not require hospitalization. She is currently in stable condition. Investigation revealed that the fish was purchased from a market in Tai Po on 24 Mar 2012. A CHP spokesman said ciguatera fish poisoning is not uncommon in tropical areas. It is mainly associated with the consumption of big coral reef fish that have accumulated the toxin in the body, in particular in internal organs, through eating small fish that consumed toxic algae in coral reef seas. A larger fish is therefore more likely to carry higher amounts of the toxin. However, it is not easy to tell from the appearance of the fish if it contains toxin. People affected may show symptoms of numbness of the mouth and the limbs, vomiting, diarrhea, reversal of sensation of coldness and hotness, and pain in the joints and muscles. The spokesman said that most people affected by ciguatoxin would recover without long-term health effects. However, if excessive toxin is consumed, the circulatory and nervous systems can be affected. "The toxin cannot be destroyed by cooking," the spokesman said. To prevent ciguatera fish poisoning, members of the public should observe the following measures: eat less coral reef fish; eat small amounts of coral reef fish at any one meal and avoid having a whole fish feast in which all the dishes come from the same big coral reef fish; avoid eating the head, skin, intestines, and roe of coral reef fish, which usually have a higher concentration of toxin; when eating coral reef fish, avoid consuming alcohol, peanuts, or beans as they may aggravate ciguatoxin poisoning; seek medical treatment immediately should symptoms of ciguatoxin fish poisoning appear; and coral reef fish should be purchased from reputable and licensed seafood shops. Do not buy the fish when the source is doubtful. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

ANTHRAX (NAMIBIA): 27 March 2012, A total of 3 workers from Farm Kroonster 448 in the Omaheke Region died in the Gobabis State Hospital last week from an illness related to anthrax. It is suspected that 5 farm workers of Farm Kroonster contracted anthrax after they ate meat of a cow that died on its own at that farm. Two out of the 5 are still being treated at the Gobabis State Hospital for an illness related to anthrax, said a nurse on duty at the hospital on condition of anonymity on Monday [26 Mar 2012]. The registered nurse said the 2 farm workers who are still admitted are in a critical condition and all movements from that ward are restricted. "You can confirm this with the hospital matron. Even the remains of the deceased 3 farm workers are still being kept here in our mortuary for further laboratory investigations," she explained. Approached for comment this morning, Omaheke Regional Health Director Puumue Katjiuanjo refused to talk to this reporter. He simply commanded his 2 secretaries to close his office doors, and said he did not want to see or talk "to this Nampa journalist." Meanwhile, Omaheke Chief Animal Health Technician George Ruhumba of the Ministry of Agriculture, Water and Forestry's Veterinary Services' Directorate, told Nampa [New Era reporter] today that business at Farm Kroonster is under restrictions for 21 days. Ruhumba said the Omaheke Veterinary Services had acted upon a request of the Ministry of Health and Social Services here to ban all livestock products entering or exiting that farm. He said there is a suspected case of anthrax at Farm Kroonster, a commercial farm, situated close to 100 kilometres east of Gobabis in the Omaheke Region [which puts it close to the Botswana border.]. Ruhumba said although Omaheke's Veterinary Services had conducted its own tests on 19 livestock and all tested negative, restriction orders were still active [Presumably these 19 animals were the unaffected animals in the herd. - Mod.MHJ]. Ruhumba, who was at the farm to investigate the case, said some farm workers there started to complain of stomach pains after they ate the meat of a cow that died early this month. "3 died after 2 days, and 2 more were admitted into the Gobabis State Hospital," he told Nampa [the news reporter] in an interview this morning at his office. The acting Chief Veterinarian for Omaheke, Hardap and Karas Regions, Dr Emmanuel Hikufe, on 19 Mar 2012 wrote a letter to the owner of the farm. The letter from Hikufe, that is in possession of this reporter, states, "according to the Gobabis State Hospital, the samples which were taken from the 4 people at your farm, (show) the 4 were exposed to anthrax." Hikufe further writes that anthrax is a disease transmissible from animals to humans, and in most cases is fatal. "Therefore, according to the Disease and Parasite Act, Act 13 of 1995, should such a life-threatening disease be suspected, strict precautionary measures will be put in place until it is deemed safe." [The owner of the farm] has in the meantime engaged his Gobabis-based private lawyer to look for proof of the tests conducted by the Ministry of Health and Social Services. [The lawyer], for his part, wrote on 22 Mar 2012 to the ministry, instructing them to give his office all the results of samples taken from the farm workers who tested positive for anthrax. [He] stated in the letter that his client, continues to suffer losses at the farm as business activities there have stopped. (Anthrax is listed in Category A on the CDC List of Critical Biological Agents) *Non-suspect case

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: http://preparedness.dhmh.maryland.gov/

Maryland's Resident Influenza Tracking System: http://dhmh.maryland.gov/flusurvey

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NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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Table: Text-based Syndrome Case Definitions and Associated Category A Conditions

Syndrome	Definition	Category A Condition
Botulism-like	ACUTE condition that may represent exposure to botulinum toxin ACUTE paralytic conditions consistent with botulism: cranial nerve VI (lateral rectus) palsy, ptosis, dilated pupils, decreased gag reflex, media rectus palsy. ACUTE descending motor paralysis (including muscles of respiration) ACUTE symptoms consistent with botulism: diplopia, dry mouth, dysphagia, difficulty focusing to a near point.	Botulism
Hemorrhagic Illness	SPECIFIC diagnosis of any virus that causes viral hemorrhagic fever (VHF): yellow fever, dengue, Rift Valley fever, Crimean-Congo HF, Kyasanur Forest disease, Omsk HF, Hantaan, Junin, Machupo, Lassa, Marburg, Ebola ACUTE condition with multiple organ involvement that may be consistent with exposure to any virus that causes VHF ACUTE blood abnormalities consistent with VHF: leukopenia, neutropenia, thrombocytopenia, decreased clotting factors, albuminuria	VHF
Lymphadenitis	ACUTE regional lymph node swelling and/ or infection (painful bubo- particularly in groin, axilla or neck)	Plague (Bubonic)
Localized Cutaneous Lesion	SPECIFIC diagnosis of localized cutaneous lesion/ ulcer consistent with cutaneous anthrax or tularemia ACUTE localized edema and/ or cutaneous lesion/ vesicle, ulcer, eschar that may be consistent with cutaneous anthrax or tularemia INCLUDES insect bites EXCLUDES any lesion disseminated over the body or generalized rash EXCLUDES diabetic ulcer and ulcer associated with peripheral vascular disease	Anthrax (cutaneous) Tularemia
Gastrointestinal	ACUTE infection of the upper and/ or lower gastrointestinal (GI) tract SPECIFIC diagnosis of acute GI distress such as Salmonella gastroenteritis ACUTE non-specific symptoms of GI distress such as nausea, vomiting, or diarrhea EXCLUDES any chronic conditions such as inflammatory bowel syndrome	Anthrax (gastrointestinal)

Syndrome Definitions for Diseases Associated with Critical Bioterrorism-associated Agents
(continued from previous page)

Syndrome	Definition	Category A Condition
Respiratory	ACUTE infection of the upper and/ or lower respiratory tract (from the oropharynx to the lungs, includes otitis media) SPECIFIC diagnosis of acute respiratory tract infection (RTI) such as pneumonia due to parainfluenza virus ACUTE non-specific diagnosis of RTI such as sinusitis, pharyngitis, laryngitis ACUTE non-specific symptoms of RTI such as cough, stridor, shortness of breath, throat pain EXCLUDES chronic conditions such as chronic bronchitis, asthma without acute exacerbation, chronic sinusitis, allergic conditions (Note: INCLUDE *acute exacerbation* of chronic illnesses.)	Anthrax (inhalational) Tularemia Plague (pneumonic)
Neurological	ACUTE neurological infection of the central nervous system (CNS) SPECIFIC diagnosis of acute CNS infection such as pneumoccocal meningitis, viral encephailitis ACUTE non-specific diagnosis of CNS infection such as meningitis not otherwise specified (NOS), encephailitis NOS, encephalopathy NOS ACUTE non-specific symptoms of CNS infection such as meningismus, delerium EXCLUDES any chronic, hereditary or degenerative conditions of the CNS such as obstructive hydrocephalus, Parkinson's, Alzheimer's	Not applicable
Rash	ACUTE condition that may present as consistent with smallpox (macules, papules, vesicles predominantly of face/arms/legs) SPECIFIC diagnosis of acute rash such as chicken pox in person > XX years of age (base age cut-off on data interpretation) or smallpox ACUTE non-specific diagnosis of rash compatible with infectious disease, such as viral exanthem EXCLUDES allergic or inflammatory skin conditions such as contact or seborrheaic dermatitis, rosacea EXCLUDES rash NOS, rash due to poison ivy, sunburn, and eczema	Smallpox
Specific Infection	ACUTE infection of known cause not covered in other syndrome groups, usually has more generalized symptoms (i.e., not just respiratory or gastrointestinal) INCLUDES septicemia from known bacteria INCLUDES other febrile illnesses such as scarlet fever	Not applicable

Syndrome Definitions for Diseases Associated with Critical Bioterrorism-associated Agents
(continued from previous page)

Syndrome	Definition	Category A Condition
Fever	ACUTE potentially febrile illness of origin not specified INCLUDES fever and septicemia not otherwise specified INCLUDES unspecified viral illness even though unknown if fever is present EXCLUDE entry in this syndrome category if more specific diagnostic code is present allowing same patient visit to be categorized as respiratory, neurological or gastrointestinal illness syndrome	Not applicable
Severe Illness or Death potentially due to infectious disease	ACUTE onset of shock or coma from potentially infectious causes EXCLUDES shock from trauma INCLUDES SUDDEN death, death in emergency room, intrauterine deaths, fetal death, spontaneous abortion, and still births EXCLUDES induced fetal abortions, deaths of unknown cause, and unattended deaths	Not applicable